PATTI GOLDMAN (WSB #24426)
AMY WILLIAMS-DERRY (WSB #28711)
Earthjustice
705 Second Avenue, Suite 203
Seattle, WA 98104-1711
(206) 343-7340
(206) 343-1526 *[FAX]*
pgoldman@earthjustice.org
awilliams-derry@earthjustice.org

Attorneys for Plaintiffs

HONORABLE JOHN C. COUGHENOUR

UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF WASHINGTON

WASHINGTON TOXICS COALITION, NORTHWEST COALITION FOR ALTERNATIVES TO PESTICIDES, PACIFIC COAST FEDERATION OF FISHERMEN'S ASSOCIATIONS, and INSTITUTE FOR FISHERIES RESOURCES, Plaintiffs, v. ENVIRONMENTAL PROTECTION AGENCY, and CHRISTINE TODD WHITMAN, ADMINISTRATOR, Defendants, AMERICAN CROP PROTECTION ASSOCIATION, et al., Intervenor-Defendants.	Civ. No. C01-0132C PLAINTIFFS' NOTICE OF FILING PROPOSED ORDER **01-CV-00132-NTC**

Earthjustice
705 Second Ave., Suite 203
Seattle, WA 98104
(206) 343-7340

INTRODUCTION

Pursuant to the Court's minute order of August 14, 2003, and direction at the August 14, 2003 oral argument, plaintiffs Washington Toxics Coalition et al. are submitting the attached proposed form of injunction. The Toxics Coalition interpreted the Court's direction at the oral argument to require the parties to submit a joint proposed order to the maximum extent practicable, and worked diligently to propose and negotiate a joint proposed order on the matters predetermined by this Court's orders of July 16, 2003 and August 8, 2003. However, the other parties – defendant Environmental Protection Agency ("EPA") and defendant-intervenors CropLife America et al. – interpreted the Court's direction differently, and were unable or unwilling to engage in the type of negotiation required to produce such a joint order. As a result, the parties are submitting separate proposed orders and five-page memoranda describing how the proposed orders differ. By agreement of the parties, since CropLife has proposed categorical exclusions and alternative buffers for most pesticides and has provided its rationale in a lengthy spreadsheet and the previously submitted Mahini Declaration, the Toxics Coalition is submitting two tables providing its reasoning for its proposals or for rejecting CropLife's proposals. See Attachments 1 and 2.

I. DEFINITION OF SALMON SUPPORTING WATERS

The Coalition has defined "Salmon Supporting Waters" in narrative form to include the water bodies that support and are used by salmon for essential life functions within their range. The Coalition derived its definition of covered water bodies from EPA registrations and labels that prohibit pesticide use in buffer zones. See, e.g., 1st Code Decl. Ex. 16 at 159 (EPA's reregistration eligibility decision ("RED")); Mahini Declaration Ex. 4 at 24 (fenamiphos label); see also Mahini Declaration Ex. 5 at 2 (CropLife's proposed buffers for three pesticides); 2nd Decl. of Jennifer Shaw ¶ 28 (Aug. 7, 2003) (Syngenta's proposed definition). Significantly, plaintiffs' proposed definition includes estuaries, which the National Marine Fisheries Service ("NMFS") included in the critical habitat designations because they are essential to the conservation of listed salmonids. See, e.g., 65 Fed. Reg. 7764, 7767, 7773-4 (Feb. 16, 2000). As requested by EPA and CropLife, the Coalition's

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705 Second Ave., Suite 203
Seattle, WA 98104
(206) 343-7340

proposed definition excludes manmade irrigation ditches.

In contrast, EPA has proposed a more complicated definition that incorporates by reference two databases that vary in their scope and comprehensiveness throughout the covered area. EPA relies on the StreamNet database in Oregon and Washington, but StreamNet does not cover California. It also excludes estuaries, despite their critical role in supporting salmon. Moreover, in Washington, state and tribal fisheries agencies have developed a competing database that has more complete data for parts of the state, www.wa.gov/wdfw/hab/sshiap.

EPA also relies on the USGS hydrography database for California, but that database was designed to identify surface waters, not fish-bearing streams. It currently presents the data at a broad scale that misses many smaller salmon-bearing waters, and it includes irrigation ditches. See http://nhd.usgs.gov. The Court lacks a sufficient evidentiary basis for incorporating particular databases into the injunction.

II. PESTICIDE-SPECIFIC BUFFERS VERSUS BLANKET EXCLUSIONS FOR "NOT LIKELY TO ADVERSELY AFFECT" DETERMINATIONS

EPA's proposed order (§ II, p.4, lines 8-10) would carve out a buffer exclusion for all pesticide uses and ESUs that receive a "not likely to adversely affect" ("NLAA") determination and would make any future NLAA determination a trigger that would terminate injunctive relief. Id., ¶ VII.2.[1]

Plaintiffs, by contrast, have adhered to the Court's prior rulings on this issue and seek to have buffers apply in most ESUs for which there has been an NLAA. As the Court ordered on August 8, 2003, "[A]ny interim injunctive relief imposed by the Court shall terminate upon an EPA "no-effect" determination, a NMFS written concurrence following informal consultation, or the issuance of a NMFS biological opinion." Id. at 22. The Court has not provided for interim relief to terminate upon an NLAA determination, as EPA now proposes. To accept EPA's proposal, the

[1] This blanket NLAA exclusion would extend to any NLAA determination made in the future for any reason. It goes beyond EPA's request at oral argument, which was then limited to past NLAA determinations based on EPA's § 7(d) determination, which purported to assess the risks posed in the ESUs. EPA's Hearing Ex. 6.

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705 Second Ave., Suite 203
Seattle, WA 98104
(206) 343-7340

Court would need to reverse its holding in the August 8, 2003 Order and address the arguments presented in the August 26, 2003 responsive memorandum that the Coalition has sought leave to file – namely, that EPA's unilateral NLAA or Section 7(d) determinations cannot be the basis under ESA Section 7 for authorizing an action to proceed.

The Toxics Coalition proposes exclusions or smaller buffers for many of the NLAA determinations, where warranted based on EPA's effects determinations. See Proposed Order ¶ III.B (2 & 3); id. ¶ III.C (1-8); Attachment 1 (providing rationale for such alternative buffers). Such a variation is not warranted across the board, but only where the EPA has indicated that a particular use poses less risk to listed salmonids.

III. NMFS-AUTHORIZED PESTICIDE SPRAYING PROGRAMS

The Toxics Coalition's proposed order (¶ III.D.3) would exempt from buffers NMFS-authorized pesticide programs. EPA's proposed exemption is broader because it would not only exempt programs *authorized* by NMFS, but would also extend the exemption to programs *reviewed, but not approved*, by NMFS. EPA Proposed Order ¶ IV.C (proposed exclusion would extend to biological opinions merely "addressing" or "concerning" a Pesticide use). The EPA's language would therefore exclude from injunctive relief Pesticide use where NMFS has called jeopardy, or where NMFS refuses to concur in NLAA determinations. There is no basis for exempting Pesticide uses reviewed, but not approved, by NMFS.

IV. ADDITIONAL URBAN RESTRICTIONS

For additional safeguards in urban areas, the Coalition proposes requiring the dissemination of a discrete statement that would inform the purchaser and user that the pesticide product may harm salmon. The statement objectively characterizes the ESA status of the pesticides and the evidence presented. The information would accompany each product at the point of sale so the purchaser would be alerted to the risks posed to salmon prior to purchase and use of the product.

In contrast, EPA's proposal would develop general educational information on pesticides and salmon. EPA would retain full discretion regarding the content, which would eliminate any

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705 Second Ave., Suite 203
Seattle, WA 98104
(206) 343-7340

assurance that the necessary cautionary message would be conveyed.

EPA's proposed distribution mechanism would not be linked in any way to the specific urban pesticides or the point of sale. EPA proposes only that the information be "available" on its website and in a brochure. There is no guarantee that users will check the EPA website before buying or using an urban pesticide. Nor is there any guarantee that retailers will distribute the brochure or that they will ensure that it accompanies the urban pesticides at issue at the point of sale. EPA's proposal offers no mechanism to ensure that the information will be provided to users at all, let alone before purchase or use of the products. The only way to guarantee such distribution is for EPA to require registrants to distribute the information with the products, as plaintiffs propose.

V. ALTERNATIVE BUFFER ZONES FOR PARTICULAR PESTICIDE USES

In crafting exclusions and alternative buffers, the Coalition adhered to the standards articulated by the Court. In the August 8, 2003 Order, the Court rejected CropLife's reliance on buffer zones established without particular reference to the ESA's standards, id. at 14-15 & n.21 & 17 n.27; or based on CropLife's disagreement with EPA's findings in REDs or effects determinations that the pesticides pose risks to salmon, id. at 13-15. The Court indicated that it would, absent persuasive arguments to the contrary, adopt buffer zones recommended by or relied upon by EPA pursuant to ESA Section 7(a)(2). Id. at 12-13 & n.20; 17 n.26; 20; 22 n.37. More specifically, the Court stated: "Absent an EPA 'no effect' determination or stipulation from plaintiffs, the Court shall not entertain arguments that no buffer zones are appropriate." Id. at 20. The Court also gave some weight to Fish and Wildlife Service past biological opinions on the impact of the pesticide on aquatic species. Id. at 15-16 & n.22; 17-18.

The Toxics Coalition has proposed exclusions and alternative buffers for various pesticides based on EPA's effects determinations. Proposed Order § III.B (2-3, 5-7); III.C (1-9). The Coalition also has agreed to other alternative buffers based on the Mahini exhibits, the industry *amicus* briefs, and other record evidence. Id. § III.B (1, 4, 8-14): III.C (10-18).[2] However, the

[2] EPA's proposed order (§ III) prefaces its proposed exclusions and alternative buffers with a finding that they are supported by the record. However, some are based on the parties'

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705 Second Ave., Suite 203
Seattle, WA 98104
(206) 343-7340

Coalition did not agree to alternative buffers where: (1) the U.S. Geological Survey detected the pesticide frequently in salmon watersheds or at levels above established standards for aquatic life; (2) EPA's REDs or other analysis denoted significant water contamination or toxicity to fish; or (3) the 1989 Fish and Wildlife Service biological opinion found jeopardy to aquatic species from the pesticide and prescribed buffer zones that equal or exceed those sought here. See Attachment 1.

The Coalition also did not agree to alternative buffers where CropLife failed to provide evidence showing that the pesticide use would not pose a threat to salmon. See id. (describing Coalition's disagreement with Mahini exhibits, CropLife Tables E and F, or CropLife's spreadsheet). Most of CropLife's proposed alternative buffers rely on evidence that the Court indicated it would not credit, such as industry data and argument, and EPA re-registration documents that were not developed in the course of ESA compliance.[3]

VI. NOXIOUS WEED SPRAYING PROGRAMS

The Coalition has proposed an exemption for noxious weed spraying programs that incorporates the types of safeguards NMFS has required in its ESA Section 7 consultations on such programs to protect listed salmonids. See, e.g., Biological Opinions cited in 4th Code Decl., ¶¶ 5-6. EPA proposes an open-ended noxious weed exemption with no such safeguards. Moreover, EPA's proposed order (§ IV) states that plaintiffs recognize that such programs (as well as public health spraying) "are not likely to cause harm to salmon." In fact, all parties are ill-equipped to make such a determination without a completed Section 7 consultation.

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stipulation, in the absence of evidence upon which the Court can make such findings. EPA's proposed order also states that plaintiffs' motion is denied in part, when it is essentially being granted as modified by stipulation or alternative requests for relief. See id. Intro. & §§ III & V.

[3] As plaintiffs have previously argued, the assertions made in the exhibits attached to the Mahini Declaration are inadmissible hearsay, as they reproduce transmitted information from CropLife's members, and are not sworn statements from either those with personal knowledge or qualified experts.

Earthjustice
705 Second Ave., Suite 203
Seattle, WA 98104
(206) 343-7340

Respectfully submitted this 2nd day of October, 2003.

PATTI GOLDMAN (WSB #24426)
AMY WILLIAMS-DERRY (WSB #28711)
Earthjustice
705 Second Avenue, Suite 203
Seattle, WA 98104-1711
(206) 343-7340
(206) 343-1526 *[FAX]*
pgoldman@earthjustice.org
awillliams-derry@earthjustice.org

Attorneys for Plaintiffs

ATTACHMENT 1

Plaintiffs' Proposed Pesticide-Specific Exclusions and Alternative Buffers
Washington Toxics Coalition v. EPA
Case No. C01-0132C

Pesticide	Plaintiffs' Proposed Buffers	Plaintiffs' Rationale
1,3-dichloropropene (telone)	1 yard for soil injection > 18 inches beneath the soil with mechanical sealing of soil through cultivation No alternative buffers for irrigation applications (chemigation)	CropLife seeks 0 (no) buffers based on the RED and an industry study, neither of which has undergone ESA § 7 review. Previously, Mahini Exs. 1 & 2 and Dow Agrosciences' *amicus* brief proposed a 1-yard buffer where telone is injected more than 18" beneath the soil surface and the soil is mechanically sealed through cultivation following treatment. Plaintiffs have proposed a 1-yard buffer incorporating these constraints, although they remain concerned that 1,3-dichloropropene, which has the propensity to contaminate ground water, may still leach into salmon streams. Plaintiffs have not proposed any alternative buffer for chemigation (application of the pesticide in irrigation water), because it does not have application safeguards relied upon by Mahini Exs. 1 & 2 and the Dow *amicus* brief for a 1-yard buffer. CropLife seeks a categorical exclusion for applications by soil fumigation, but CropLife has presented no information indicating that any pesticide other than 1,3-dichloropropene is applied through soil fumigation. The categorical exclusion appears to be another way to obtain 0 buffers for soil injection and would also exclude irrigation applications (chemigation) of this pesticide.
2,4-D	20-yard ground 100-yard aerial aquatic applications of amine formulation: noxious weed exemption could apply granular formulations subject to 20-yard ground and aerial buffer 1-yard buffer for: spot treatments using hand-held, ready-to-use devices; cut-stump tree removal; individual basal bark applications 0 yards for tree injection	Plaintiffs have proposed exemptions or alternative buffers for tree injection, cut stump, basal bark, and spot treatments using hand-held ready-to-use devices. These provisions will exempt most, if not all, uses of Pathway®, Tordon®, RTU, Triamine® Spot Weed Killer, and Triamine® Jet Spray Spot Weed Killer. Plaintiffs have proposed a smaller aerial buffer for granular formulations to account for reduced drift potential. Granular formulations pose runoff risks that depend on toxicity, mobility, solubility, persistence, and other traits that have not been addressed in CropLife's proposal. Mahini Exs. 1 and 2 (pertaining to trifluralin) acknowledge the need for a buffer because of runoff from granular formulations. CropLife seeks smaller buffers for all other uses of 2,4-D based on the industry "talking points" in Mahini Ex. 3, which construe data and rely on existing labels and the FIFRA standard and have not been reviewed under ESA § 7. USGS detected 2,4-D in salmon watersheds, including some detections at or above aquatic life criteria. CropLife has offered no justification for exempting aquatic applications.

Pesticide	Plaintiffs' Proposed Buffers	Plaintiffs' Rationale
acephate	20-yard ground 100-yard aerial	CropLife proposes 0 (no) buffers for acephate based on the RED, which has not been reviewed under ESA § 7. Acephate is used in ways that lead to continuous, recurrent presence in estuary environments, and acephate degrades into methamidophos, another Pesticide awaiting consultation.[1] The 1989 Fish and Wildlife Service biological opinion found jeopardy to an aquatic species and prescribed buffers for acephate that equal or exceed those sought by plaintiffs.
azinphos-methyl	20-yard ground 100-yard aerial	Mahini Ex. 1 proposes some buffers drawn from current labels, which have not been reviewed by NMFS under ESA § 7. CropLife's proposal omits the IRED's prohibitions on aerial and dormant orchard application prohibitions, which have not yet been fully implemented. EPA's effects determination, the only review under ESA § 7, references the 40-yard ground, 200-yard aerial buffers from the California bulletins, but indicates consultation is necessary to determine the sufficiency of these protections. USGS detected azinphos-methyl above aquatic life criteria in 3 salmon watersheds. The 1989 Fish and Wildlife Service biological opinion found that azinphos-methyl would jeopardize >5 dozen aquatic species and prescribed buffers that equal or exceed those sought here to avoid jeopardy.
bensulide	All uses & ESUs except as indicated below: 20-yard ground 0-yard aerial 0-yards for agricultural crops where the maximum label application rate is <6 lb. active ingredient/acre and label requires banded applications and soil incorporation 0-yards for use on golf course tees and greens, but not fairways 0-yards in California portion of S. Oregon/N. Cal. coast coho ESU	For certain uses with application <6 lb. active ingredient per acre, plaintiffs have proposed an exemption that coincides with the effects determination findings and is limited to agricultural crops in accordance with the effects determination. CropLife's proposal is not strictly limited to agricultural crops. Plaintiffs have excluded certain golf course uses based on the effects determination and the California portion of one NLAA ESU based on documented, low agricultural usage and the lack of urban area and homeowner usage data. Plaintiffs did not exclude the other NLAA ESU because of expressed uncertainties in assumptions made about young salmon locations and the inability to quantify and assess homeowner uses. CropLife proposes smaller buffers for other bensulide uses that are not supported by the effects determination, the only review of bensulide under ESA § 7. CropLife based its proposed smaller buffers on the registrant's calculations of aerial drift potential, but EPA did not adopt this view in its effects determination. Because the effects determination relies on the California bulletins, it supports buffers of 40 yards (ground) and 200 yards (aerial). The 1989 Fish and Wildlife Service biological opinion found jeopardy to aquatic species and prescribed buffers for bensulide that equal or exceed those sought by plaintiffs.

[1] This chart does not present EPA's findings in its re-registration eligibility decisions and risk assessments that the estimated environmental concentrations of these pesticides under currently registered uses will exceed levels of concern for salmon, their food supply, or their habitat. These findings are embodied in the EPA documents in evidence and are summarized in the 1st and 2nd Declarations of Aimee Code.

Pesticide	Plaintiffs' Proposed Buffers	Plaintiffs' Rationale
bromoxynil	20-yard ground 100-yard aerial	CropLife seeks 0 (no) buffers based on the registrant's disagreement with the EPA RED, current labels, and other industry arguments, none of which has been reviewed under ESA § 7. CropLife seeks current label buffers for one product, but the label has not been reviewed under ESA § 7.
captan	20-yard ground 100-yard aerial	For captan, CropLife seeks a 1-yard ground buffer and a 40-yard aerial buffer subject to limits based on the RED and industry reports that have not been reviewed under ESA § 7. Mahini Ex. 1 cited an unexplained communication from the registrant in support of a 0 (no) yard buffer for captan. The Makhteshim-Agan *amicus* brief argues that captan will degrade rapidly, but it does not refute the RED finding that authorized uses will lead to exceedances of EPA's levels of concern for fish. The 1989 Fish and Wildlife Service biological opinion found jeopardy to aquatic species and prescribed buffers for captan that equal or exceed those sought by plaintiffs.
carbaryl	All uses except as stated below: 20 yard ground 100 yard aerial 1-yard buffer for spot treatment of wasp and hornet nests and bait in bait stations 0 yards for household potted plants, flea and tick collars, and indoor uses	Plaintiffs have proposed 1-yard buffers for spot treatments of wasp and hornet nests and bait stations, and have excluded flea and tick collars, indoor uses, and outdoor household potted plants in response to Mahini Ex.1. CropLife has proposed 0 (no) buffers for carbaryl based on CropLife's unsupported argument about likely stream contamination and the registrant's disagreement with EPA's "may affect" effects determination. EPA's effects determination, which is the only review of carbaryl under ESA § 7, referenced the 40-yard ground and 200-yard aerial buffers in the California bulletins, but indicated EPA needed to consult with NMFS to determine whether these buffers are sufficient. Plaintiffs did not propose alternatives for the two NLAA ESUs because EPA based its NLAA determination for the California ESU on the California bulletin and EPA acknowledged that the unassessed homeowner use in Puget Sound could affect its other NLAA. USGS detected carbaryl above aquatic life criteria in 4 salmon watersheds. The 1989 Fish and Wildlife Service biological opinion found jeopardy to aquatic species and prescribed buffers for carbaryl that equal or exceed those sought by plaintiffs.
carbofuran	20-yard ground 100-yard aerial Exception: 1-yard buffer for dipping pine seedlings in 1% slurry	Plaintiffs have proposed a 1-yard buffer for pine seedling dipping treatments based on Mahini Ex. 6. Plaintiffs sought information regarding runoff potential of drip irrigation applications to wine grapes to confirm assertions made in Mahini Ex. 6 at 4 n.3, and whether carbofuran is used in the range of listed salmon on container-grown ornamentals, id., but CropLife never provided supporting information. CropLife has proposed smaller buffers based on the registrant's arguments and risk analysis, which have not been reviewed under ESA § 7. USGS detected carbofuran frequently and at levels above aquatic life criteria in a salmon basin. The 1989 Fish and Wildlife Service biological opinion found jeopardy to aquatic species and prescribed buffers for carbofuran that equal or exceed those sought by plaintiffs.

Pesticide	Plaintiffs' Proposed Buffers	Plaintiffs' Rationale
chlorothalonil	20-yard ground 100-yard aerial	CropLife proposes the label buffers, which have not been reviewed under ESA § 7. Syngenta's *amicus* brief reargues legal issues, presents industry studies, and relies on the label and RED, which this Court noted "were set without any particular reference to threatened and endangered salmonids and the institutionalized caution of the ESA." Aug. 8, 2003 Order at 14 & n.21. The 1989 Fish and Wildlife Service biological opinion found jeopardy to aquatic species and prescribed buffers for chlorothalonil that equal or exceed those sought by plaintiffs.
chlorpyrifos	All uses except as stated below: 20-yard ground 100-yard aerial 0-yards for: cattle ear tags; indoor uses; manufacturing end-use products 1-yard buffer for spot treatments using hand-held, ready-to-use devices Indoor use exemption could apply	Plaintiffs have proposed excluding cattle ear tags and manufacturing use-only products containing chlorpyrifos. To the extent Dursban ME02, ME04, and ME20 are used indoors, they would be excluded under plaintiffs' proposal to exclude indoor uses. Dursban products that are hand-held ready-to-use devices would be subject to plaintiffs' spot treatment 1-yard buffer, rather than CropLife's proposed exclusion. CropLife asserts that one product (Lorsban ® 4E-SG) was cancelled in early 2003, but EPA no longer allows use of the product (including existing stocks). As a result, there would be no need to exclude it from the buffers. For one product (Nufos ® 4E (RUP), CropLife proposes only the buffers on the label, but CropLife represents that the label has a 30-foot ground and 300-foot aerial buffer for wheat only, while the product is also used in California, Oregon, and Washington on numerous other crops. For the remaining products, CropLife proposes smaller buffers based on the IRED and industry drift calculations, which have not been accepted by EPA in its effects determination or reviewed by NMFS under ESA § 7. (Note: CropLife's proposal does not reflect larger buffers required in the IRED, e.g., 300 feet for aerial applications to wheat). CropLife's spreadsheet asserts that certain specialty uses of Lorsban® 50-W may not warrant buffers, but has provided no support. Dow's *amicus* brief likewise relies on the IRED and on proposed or possible actions California may take to clean up chlorpyrifos contamination as required under the Clean Water Act. Contrary to Dow's representation, NMFS has not reviewed, let alone found reasonable, any particular buffer zones or use restrictions. The letter erroneously and misleadingly cited for this proposition was submitted by plaintiffs in a notice of filing (Aug. 13, 2003). EPA's effects determination, the only review of chlorpyrifos under ESA § 7, relied on the buffers in the California bulletins. Plaintiffs have not proposed alternative buffers for the 3 NLAAs because EPA predicated 4 of those NLAAs on the California bulletin buffers, even though they remain voluntary, and the one NLAA determination outside of California acknowledges uncertainties about the pesticide's use and salmon impacts. USGS detected chlorpyrifos at levels above aquatic life criteria in 4 salmon basins. The 1989 Fish and Wildlife Service biological opinion found jeopardy to aquatic species and prescribed buffers for chlorpyrifos that equal or exceed those sought by plaintiffs.

Pesticide	Plaintiffs' Proposed Buffers	Plaintiffs' Rationale
coumaphos	0 yards for: cattle ear tags pest control strips 20-yard ground for 24 hours following application to livestock 0-yard aerial 0-yard manufacturing end-use products	Plaintiffs propose exempting bee strips and cattle ear tags and indoor uses, which should cover indoor livestock premises, and manufacturing use-only products. See Mahini Exs. 1 and 4 at 25. Plaintiffs have proposed a 1-day time limitation on the ground buffer to keep treated cattle out of salmon waters. EPA has found that within 1-3 days of treatment "Coumaphos is sufficiently toxic on a chronic basis that a single treated cow wading into the body of water could cause high risk to invertebrates on a chronic basis." RED Coumaphos at 53 (2nd Code Exhibit 5). Because of this risk, CropLife's proposed 0-yard buffer is unwarranted. No aerial buffer is needed because coumaphos is not applied aerially.
diazinon	20-yard ground 100-yard aerial	CropLife and Makhteshim-Agan propose no buffers beyond those on existing labels, required by the IRED, or to be developed by California to comply with the Clean Water Act, but these buffers have not been approved by NMFS under ESA § 7. Contrary to Makhteshim's representation, NMFS has neither reviewed nor found reasonable any particular buffer zones or use restrictions. The letter erroneously and misleadingly cited for this proposition was submitted by plaintiffs in a notice of filing (Aug. 13, 2003). EPA's effects determination, the only review of diazinon under ESA § 7, stated that if the buffers in the California bulletins were followed, aquatic concentrations would rarely be of concern except for dormant orchard sprays. This supports requiring buffers of 40 and 200 yards. Plaintiffs did not propose alternative buffers for the NLAA ESUs because EPA relied on future phase-outs of diazinon uses, undocumented as to location and impact. USGS detected diazinon at levels above aquatic life criteria in all 5 salmon basin surveyed. The 1989 Fish and Wildlife Service biological opinion found jeopardy to aquatic species and prescribed buffers for diazinon that equal or exceed those sought by plaintiffs.
diflubenzuron	20-yard ground 100-yard aerial	CropLife proposes smaller buffers based on the current label and RED, which have not been reviewed under ESA § 7. Mahini Exs. 1 and 8. The 1989 Fish and Wildlife Service biological opinion found jeopardy to aquatic species and prescribed buffers for diflubenzuron that equal or exceed those sought by plaintiffs.
dimethoate	20-yard ground 100-yard aerial	CropLife presented no proposed buffer for any dimethoate products and, therefore, there is no basis for alternative buffers. The Mahini Declaration transmitted no registrant proposal for dimethoate. The 1989 Fish and Wildlife Service biological opinion found jeopardy to aquatic species and prescribed buffers for dimethoate that equal or exceed those sought by plaintiffs.

Pesticide	Plaintiffs' Proposed Buffers	Plaintiffs' Rationale
disulfoton	20-yard ground 100-yard aerial	CropLife proposes smaller buffers based: (1) on the current label and the IRED, which have not been reviewed under ESA § 7; and (2) on the registrant's disagreement with EPA's risk assessment and IRED. Mahini Exs. 1 and 4. (Note that the IRED provides for the future phase out of uses on barley and wheat, which EPA found pose the greatest risk in the Pacific Northwest, and aerial applications, but the phase outs are not fully in place and these uses would continue without additional constraints under CropLife's proposals). The 1989 Fish and Wildlife Service biological opinion found jeopardy to aquatic species and prescribed buffers for disulfoton that equal or exceed those sought by plaintiffs.
diuron	20-yard ground 100-yard aerial granular formulations subject to 20-yard ground and aerial buffer	Plaintiffs propose a 20-yard buffer for aerial applications of granular formulations based, in part, on CropLife's diuron proposal. Mahini Exs. 1 and 10. CropLife proposes smaller buffers based on the registrant's interpretation of selected water quality data, which has not been reviewed under ESA § 7. In the effects determination, the only review of diuron under ESA § 7, EPA has made "may affect" determinations for most ESUs and has identified buffers as a "possible protective method." USGS detected diuron frequently and at levels above aquatic life criteria in several salmon watersheds. The 1989 Fish and Wildlife Service biological opinion found jeopardy to aquatic species and prescribed buffers for diuron that equal or exceed those sought by plaintiffs.
ethoprop	20-yard ground 100-yard aerial ethoprop is not subject to the alternative buffer for granular formulations	CropLife proposes only those buffers required on current labels, which have not been reviewed under ESA § 7. Mahini Exs. 1 and 4. It appears that the current label buffers apply only to freshwater in the Pacific Northwest and California, even though EPA has found ethoprop to be particularly toxic to estuary organisms. Id.; 3rd Code Decl. Ex. 10 at 70. The 800-foot buffer along brackish waters is applicable only along the Atlantic Seaboard. The IRED called for cancellation of aerial applications and certain uses, which are identified as current application methods or uses in CropLife's spreadsheet. Id. at 3-4. The IRED found risks to fish and aquatic invertebrates and stated, "Given the extent and magnitude of LOC exceedances, [EPA] does not believe the risks from use of ethoprop can be mitigated effectively." Cover letter at 4. Because of its persistence, ethoprop is the only pesticide excluded from plaintiffs' smaller buffer proposed for granular formulations. The 1989 Fish and Wildlife Service biological opinion found jeopardy to aquatic species and prescribed buffers for ethoprop that equal or exceed those sought by plaintiffs.

Pesticide	Plaintiffs' Proposed Buffers	Plaintiffs' Rationale
fenamiphos	20-yard ground 100-yard aerial	CropLife proposes only those buffers required on current labels, which have not been reviewed under ESA § 7. Mahini Exs. 1 and 4 suggest that the 20-yard ground and 100-yard aerial buffers are unnecessary because of current uses and label requirements, but CropLife did not provide supporting documentation to show that the label buffers and aerial application prohibitions are in place for all uses in listed salmon habitat. The 1989 Fish and Wildlife Service biological opinion found jeopardy to aquatic species and prescribed buffers for fenamiphos that are equal to or larger than those sought by plaintiffs.
fenbutatin-oxide	20-yard ground 200-yard aerial	The effects determination, the only review of fenbutatin-oxide under ESA § 7, indicated that the California bulletin buffers would be protective if they applied to fenbutatin-oxide (they currently do not apply) and if the aerial buffer covered air blast sprayers. The effects determination recommended comparable size buffers in Oregon and Washington. If an alternative buffer is imposed for fenbutatin-oxide, it should be a 20-yard ground buffer and a 200-yard aerial buffer that extends to air blast spraying. Plaintiffs have proposed such a buffer. CropLife proposes alternative buffers based on the RED for areas in Florida. CropLife Spreadsheet and Mahini Exs. 1 and 10. However, EPA has since made an effects determination for fenbutatin-oxide in which it made "may affect" determinations for all ESUs where the pesticide is or can be used, due to its very high toxicity to fish (only one of these ESUs received an NLAA because only 59 acres support crops on which the pesticide may be used and the climatic conditions make use unlikely). If the lack of use were confirmed, plaintiffs would propose excluding this NLAA ESU.
iprodione	20-yard ground 100-yard aerial	CropLife proposes smaller buffers drawn from the current label and RED, which have not been reviewed under ESA § 7. Mahini Exs. 1 and 4.
lindane	20-yard ground 100-yard aerial 0 yards for pharmaceutical products for head lice and scabies	CropLife seeks an exemption for lindane based on its assertion that EPA's RED found no aquatic risk concerns for lindane seed treatments (Mahini Exs. 1 and 8), but the EPA RED found that risks may occur to aquatic invertebrates and freshwater fish from lindane seed treatments due to lindane's toxicity and that it will require additional data and conduct a re-assessment due to these concerns. EPA RED at 39; Revised EFED at 18-20. In any event, the RED has not been reviewed under ESA § 7. USGS detected lindane at levels above aquatic life criteria in 4 salmon basins. CropLife has proposed a categorical exclusion for use of pesticides as seed treatments and seed coatings. CropLife has presented no evidence that any pesticide other than lindane is used in this manner. In other words, this categorical exclusion is simply another way of proposing 0 buffers for lindane.

Pesticide	Plaintiffs' Proposed Buffers	Plaintiffs' Rationale
linuron	20-yard ground 100-yard aerial	CropLife has presented no alternative buffer proposal for linuron in the proposed order provided to plaintiffs, the spreadsheet provided to plaintiffs, or Mahini Declaration exhibits. Therefore, there is no basis for alternative buffers for linuron. CropLife's spreadsheet identifies aerial uses of linuron even though the RED called for prohibition of aerial application as a mitigation measure.
malathion	20-yard ground 100-yard aerial public health programs using malathion may be subject to the public health exemption	CropLife seeks 0 (no) buffers for all malathion products. The spreadsheet provided to plaintiffs based this proposal on unspecified comments from Griffin, the registrant of some malathion products. CropLife has informed plaintiffs that it may also rely on the Declaration of Richard Reiss (Mar. 2003), which tries to minimize the adverse effects of malathion by focusing on direct impacts to salmon, when EPA found risks of concern to aquatic invertebrates. The Reiss declaration supplies no basis for crafting alternative buffers or exclusions for malathion. No evidence has been presented to plaintiffs to support excluding malathion from the buffer zones. USGS detected malathion at levels above aquatic life criteria in 4 salmon basins. The 1989 Fish and Wildlife Service biological opinion found jeopardy of aquatic species and prescribed buffers for malathion that are equal to or larger than those sought by plaintiffs.
methamidophos	20-yard ground 100-yard aerial	CropLife proposes 0 (no) buffers for methamidophos based on the IRED, which has not been reviewed under ESA § 7. Both CropLife's spreadsheet and Mahini Ex. 1 merely cite the IRED without providing any explanation as to why CropLife believes the IRED provides sufficient mitigation for risks to salmon. Note that CropLife's spreadsheet indicates uses in California of methamidophos on cotton, a crop that is being phased out as a mitigation measure. Methamidophos is the degradate of acephate, another Pesticide awaiting consultation.
methidathion	20-yard ground 100-yard aerial	CropLife proposes alternative buffers based on the IRED, which has not been reviewed under ESA § 7. CropLife's Table E provides a range for the ground buffer without specifying the reasons for falling at one or the other end of the range. The 1989 Fish and Wildlife Service biological opinion found jeopardy of aquatic species and prescribed buffers for methidathion that are equal to or larger than those sought by plaintiffs.
methomyl	20-yard ground 100-yard aerial	CropLife proposes smaller buffers that coincide with current labels based on the RED and an unspecified communication from a registrant, none of which has been reviewed by NMFS under ESA § 7. CropLife Spreadsheet and Mahini Ex. 1. Pursuant to ESA § 7, EPA has made "may affect" determinations for 24 ESUs. While EPA noted the buffers required by the RED and the California bulletin buffers for the California ESUs, EPA was "unable to quantify reductions in aquatic estimated environmental concentrations that may result from applicators adhering to a no-spray buffer" and decided that it needed to consult with NMFS "to determine if such a no-spray buffer is sufficiently protective of listed salmonids and cover plants or if other measures are warranted to protect these ESUs." Effects Determination at 1-2. The 1989 Fish and Wildlife Service biological opinion found jeopardy of aquatic species and prescribed buffers for methomyl that are equal to or larger than those sought by plaintiffs.

Pesticide	Plaintiffs' Proposed Buffers	Plaintiffs' Rationale
methyl parathion	20-yard ground 100-yard aerial	CropLife proposes 0 (no) buffers for methyl parathion citing the EPA IRED, which has not been reviewed under ESA § 7. The Mahini Declaration exhibits offer no proposed buffers for methyl parathion. The 1989 Fish and Wildlife Service biological opinion found jeopardy of aquatic species and prescribed buffers for methyl parathion that are equal to or larger than those sought by plaintiffs.
metolachlor	All ESUs unless noted below: 20-yard ground 100-yard aerial 0 yards in the following ESUs: S. Cal. steelhead; South-Central Cal. coast steelhead; Central Cal. coast steelhead; Central Valley Cal. steelhead, and Central Valley spring-run chinook; and the California portion of the S. Oregon/N. Cal. coast coho	CropLife has presented plaintiffs no proposed buffers for metolachlor in either the spreadsheet or the Mahini Declaration exhibits. Plaintiffs have proposed excluding the California ESUs from the buffers because California canceled all uses in 1999 and use of existing stocks is declining as documented through California's mandatory agricultural use reporting. Plaintiffs' proposed exclusions are based on the effects determination, the only review of metolachlor under ESA § 7. EPA made "not likely to adversely affect" determinations for all of these ESUs, except the Southern Oregon, Northern California coho ESU, which is in both Oregon and California. USGS detected metolachlor frequently in 3 salmon watersheds.
metribuzin	20-yard ground 100-yard aerial	CropLife proposes 0 (no) buffers for metribuzin based on the current labels and the registrant's disagreement with the EPA RED finding levels of concern exceeded for aquatic plants. Mahini Ex. 1 and 4. Neither the label nor the registrant's arguments have been reviewed under ESA § 7. The registrant relies on a USGS study from Missouri, but USGS detected metribuzin both frequently and above aquatic life criteria in a salmon basin. Note that prohibition of aerial application of asparagus and tomatoes is identified as a mitigation measure in the RED yet CropLife's spreadsheet indicates metribuzin is applied by air to these crops in California, Oregon, and Washington. 3rd Code Decl. Ex. 14 at 120-24.
molinate	For use on rice in the Central Valley Cal. steelhead, Sacramento River winter-run chinook, and Central Valley spring-run chinook ESUs: 25-foot ground 150-foot aerial There are no other molinate uses in Salmon ESUs.	Plaintiffs agree to CropLife's proposed buffers of 25 feet for ground applications and 150 feet for aerial applications, but do not concur in the reasons stated by CropLife. CropLife's spreadsheet relies on the "no effect" determinations for 23 ESUs to contend that salmonids are unlikely to be exposed to molinate, but EPA based those "no effect" determinations on the fact that molinate is not used in those ESUs. Where molinate is used (in the three remaining ESUs), EPA made NLAA determinations because of detections of molinate in water bodies at levels that adversely affect aquatic life, albeit with less frequency than in the past. As noted in the effects determination, California now requires holding of treated water for specified time frames and monitoring has documented declining concentrations in water bodies, although some detections exceed water quality management standards.

Pesticide	Plaintiffs' Proposed Buffers	Plaintiffs' Rationale
naled	20-yard ground 100-yard aerial public health programs using naled may be subject to the public health exemption	CropLife proposes smaller buffers for naled based on unspecified communications from the registrant. No evidence has been presented to plaintiffs supporting different buffers for naled. CropLife seeks a 0 (no) yard buffer for mosquito control uses, but to the extent such use is under a public health vector control program administered by a public entity, it would be excluded under plaintiffs' proposed public health exclusion. The 1989 Fish and Wildlife Service biological opinion found jeopardy to aquatic species and prescribed buffers for naled that are equal to or larger than those sought by plaintiffs.
oryzalin	All ESUs and uses (except as stated below): 20-yard ground 100-yard aerial in California 0-yard aerial in Oregon & Washington 0-yards for </= 2 lb. ai/Acre on grapes in the California ESUs	Plaintiffs have proposed excluding low application rates for grapes based on findings in the effects determination, the only review of oryzalin under ESA § 7. Plaintiffs have also proposed excluding aerial applications in Oregon and Washington from the aerial buffer based on the effects determination. Even though the oryzalin ESUs received NLAAs, plaintiffs did not propose excluding them from the buffers because the NLAAs were based on estimated low usage but usage could increase under current EPA registrations and labels. CropLife proposes a 25-foot, no-spray vegetative filter strip for ground applications and no aerial buffer, citing EPA's effects determination. However, the effects determination neither recommends nor relies on such buffers. EPA's effects determination for oryzalin recommends no-spray buffers and a vegetative filter strip, but does not specify a size for these buffers. The effects determination suggests that aerial uses occur in California.
oxyfluorfen	20-yard ground 100-yard aerial	CropLife proposes smaller buffers for oxyfluorfen, citing the RED. Dow's *amicus* brief endorses this proposal based on the RED. The RED has not been reviewed under ESA § 7. The 1989 Fish and Wildlife Service biological opinion found jeopardy to aquatic species and prescribed buffers for oxyfluorfen that are equal to or larger than those sought by plaintiffs.
pendimethalin	20-yard ground 100-yard aerial	CropLife proposes 0 (no) buffers for pendimethalin based on the registrant's disagreement with EPA's findings in the RED. Mahini Exs. 1 and 11. Neither the RED nor the registrant's arguments have been reviewed under ESA § 7. The 1989 Fish and Wildlife Service biological opinion found jeopardy to aquatic species and prescribed buffers for pendimethalin that are equal to or larger than those sought by plaintiffs.

Pesticide	Plaintiffs' Proposed Buffers	Plaintiffs' Rationale
phorate	All uses except as indicated below: 40-yard ground 0-yard aerial 0-yards for use on potatoes	Plaintiffs propose a 40-yard ground and no aerial buffer based on the effects determination (the only review of phorate under ESA § 7), which recommended a 40-yard buffer for ground applications due to phorate's toxicity. The effects determination explains: "I believe that this protection should be consistent with the reduction in exposure that would result from the use of buffers of the size indicated above and in DPR's bulletins for aquatic hazards (i.e., 40 yards for ground applications), but the protective method may take a form entirely different from buffers." Effects Determination at 69. Plaintiffs propose to exclude phorate from the aerial buffer because phorate can no longer be applied aerially, and to exclude ground uses of phorate on potatoes because EPA made a "no effect" finding for potatoes. CropLife proposes a 66-foot ground buffer in certain soil conditions based on the IRED. However, the effects determination proposed an even larger ground buffer. The 1989 Fish and Wildlife Service biological opinion found jeopardy to aquatic species and prescribed buffers for phorate that are equal to or larger than those sought by plaintiffs.
phosmet	20-yard ground 100-yard aerial	CropLife proposes smaller buffers based on the current label, the IRED, and the registrant's calculation of aerial drift, none of which have been reviewed under ESA § 7. CropLife's spreadsheet indicates that the current labels impose buffers only for cotton (which is identified as a phosmet use in California) and that those buffers are 100-feet for most aquatic habitat, but 1-mile for estuary and coastal waters. Mahini Ex. 5 proposed no ground buffers but buffers for drift from both aerial and airblast spraying that would apply to all crops. (Note that airblast spraying is a ground-based application method that is not generally included in the aerial application buffer sought by plaintiffs). For unexplained reasons, CropLife has abandoned the across-the-board buffers proposed in Mahini Ex. 5. The 1989 Fish and Wildlife Service biological opinion found jeopardy to aquatic species and prescribed buffers for phosmet that are equal to or larger than those sought by plaintiffs.
prometryn	20-yard ground 100-yard aerial	CropLife proposes smaller buffers for prometryn, citing the RED, a USGS document, and the EPA effects determination, none of which has been reviewed by NMFS under ESA § 7. The Mahini Declaration exhibits contain no proposal for prometryn. EPA's effects determination, the only review of prometryn under ESA § 7, does not support the CropLife proposal. In the effects determination, EPA made "may affect" determinations for 9 ESUs based on the existing registrations and label restrictions, and recommended buffers for each ESU without specifying buffer dimensions. Effects Determination at 26, 27, 30, 33, 36, 42, 47, 48, 57. EPA proposed as an alternative eliminating aerial applications in the Central Valley steelhead ESU. Id. at 30.

Pesticide	Plaintiffs' Proposed Buffers	Plaintiffs' Rationale
propargite	All uses and ESUs (except indicated below): 50-foot ground 75-foot aerial For mint, seed alfalfa, potatoes, and hops: 50-foot ground 100-yard aerial in the: Middle Columbia steelhead ESU; Palouse watershed of the Snake River fall chinook ESU; Willamette Valley portion of the Upper Willamette steelhead and Upper Willamette chinook ESUs; and Oregon portion of the Klamath River watershed in the Southern Oregon/Northern California coast coho ESU For all crops: 100-yard ground 100-yard aerial in the Upper Columbia chinook and Upper Columbia steelhead ESUs	Plaintiffs propose the buffer zones recommended by EPA in the effects determination. In the effects determination, EPA concluded that the 50-foot ground and 75-foot aerial buffers would be sufficient for most uses. It recommended: (1) an additional 100-yard aerial buffer for mint, seed alfalfa, potatoes, and hops for specified portions of the Snake River chinook, Southern Oregon/Northern California coast coho, Upper Willamette chinook, Upper Willamette steelhead, and Middle Columbia River steelhead ESUs; and (2) a 100-yard ground and aerial buffer in all counties upstream of the confluence of the Snake and Columbia Rivers in the Upper Columbia chinook and Upper Columbia steelhead ESUs. Effects Determination at 77-78; Plaintiffs Notice of Filing of Summary of EPA Expert Buffer Recommendations (Aug. 12, 2003). Plaintiffs have proposed buffers incorporating the effects determination recommendations. EPA also relied on the buffers in the California bulletins in making its effects determinations for California ESUs, which makes it inappropriate to have smaller buffers than the specific recommendations for the California ESUs, including those receiving NLAA determinations. Effects Determination at 77. CropLife proposes 50-foot ground and 75-foot aerial buffers for all propargite uses based on the current label, the RED, and arguments presented by the registrant from water quality monitoring data. The only review under ESA § 7 is the EPA effects determination, which provided for additional, larger buffer zones as described above. The 1989 Fish and Wildlife Service biological opinion found jeopardy to aquatic species and prescribed buffers for propargite that are equal to or larger than those sought by plaintiffs.

Pesticide	Plaintiffs' Proposed Buffers	Plaintiffs' Rationale
tebuthiuron	20-yard ground 100-yard aerial granular formulations subject to 20-yard ground and aerial buffer	CropLife proposes a 3-foot buffer for 2 tebuthiuron products asserting that they are granular products, but the supporting statement in the spreadsheet provided to plaintiffs refers to sprayable applications as well. Plaintiffs have proposed a smaller aerial buffer for granular formulations that coincides with the ground buffer, but have not proposed an alternative ground buffer because granular formulations pose runoff risks that depend on toxicity, mobility, solubility, persistence, and other traits that have not been addressed in CropLife's proposal. Mahini Exs. 1 and 2 (pertaining to trifluralin) acknowledge the need for a buffer because of runoff from granular formulations. CropLife cites industry data and argument to justify both the 3-foot buffer and another set of alternative, smaller buffers for another tebuthiuron product, but the data and arguments have not been reviewed under ESA § 7. The RED (noting a significant risk to aquatic and semi-aquatic plants) indicates that tebuthiuron is a persistent, known surface water contaminant, and USGS detected tebuthiuron frequently in salmon watersheds. CropLife would also make its alternative buffers dependent on wind conditions, but has proposed no wind speeds or implementation mechanisms for such variable constraints. Although not in CropLife's final proposal, Mahini Exs. 1 and 2 proposed a 20-foot vegetated buffer for runoff based on the California bulletins, stating that the bulletins "offer a standardized system for managing pesticide products [that] could be extended to ESUs outside of California." This rationale would support adoption of the 40-yard ground and 200-yard aerial buffers in the California bulletins as well.
thiobencarb	For use on rice in the Central Valley California steelhead, Sacramento River winter-run chinook, and Central Valley spring-run chinook ESUs: 25-foot ground 150-foot aerial There are no other thiobencarb uses in Salmon ESUs.	Plaintiffs agree to CropLife's proposed buffers of 25 feet for ground applications and 150 feet for aerial applications, but do not concur in the reasons stated by CropLife. CropLife's spreadsheet relies on the "no effect" determinations for 23 ESUs to contend that salmonids are unlikely to be exposed to thiobencarb, but EPA based those "no effect" determinations on the fact that thiobencarb is not used in those ESUs. Where thiobencarb is used (in the three remaining ESUs), EPA made NLAA determinations because of detections of thiobencarb in water bodies at levels that adversely affect aquatic life, albeit with less frequency than in the past. As noted in the effects determination, California now requires holding of treated water for specified time frames and monitoring has documented declining concentrations in water bodies, although some detections still exceed state-established performance criteria.

Pesticide	Plaintiffs' Proposed Buffers	Plaintiffs' Rationale
triclopyr BEE	20-yard ground 100-yard aerial aquatic applications of amine formulation: noxious weed exemption could apply to some uses	CropLife proposes 0 (no) buffers for triclopyr BEE. The Mahini Declaration exhibits do not address triclopyr. The CropLife spreadsheet argues that 0 (no) buffers are appropriate for triclopyr BEE based on EPA's effects determination for triclopyr TEA. Contrary to the spreadsheet assertion, however, the triclopyr "no effect" determination addressed neither triclopyr BEE nor a triclopyr acid. The CropLife spreadsheet presents argument as to the likelihood of triclopyr BEE being present in salmon waters at levels that will harm salmon, but those arguments have not been reviewed under ESA § 7. Triclopyr BEE is listed as an aquatic hazard under the California bulletins, while triclopyr TEA is not. USGS detected triclopyr frequently in salmon watersheds.
trifluralin	20-yard ground 100-yard aerial granular formulations subject to 20-yard ground and aerial buffer	CropLife proposes several different proposed buffers for trifluralin that depend on the identity of the registrant rather than characteristics of the product. Some propose 3-foot buffers for granular products based on industry argument, but no government documents, and no evidence reviewed under ESA § 7. Others propose 10-foot ground buffers for granular products. Still others propose for granular products 10-foot ground and 25-foot aerial buffers as well as a 20-foot vegetated strip. This vegetative strip proposal is based on the California bulletins, which "offer a standardized system for managing pesticide products [that] could be extended to ESUs outside California." Mahini Exs. 1 and 2. This rationale would support also adopting the 40-yard ground and 200-yard aerial buffers from the California bulletins. In addition, the RED states that label restrictions post-consultation would most likely embody the California bulletins. 3rd Code Decl. Ex. 19 at 62. USGS detected trifluralin frequently in salmon watersheds, including at levels above aquatic life criteria The 1989 Fish and Wildlife Service biological opinion found jeopardy to aquatic species and prescribed buffers for trifluralin that are equal to or larger than those sought by plaintiffs.

ATTACHMENT 2

Plaintiffs' Use-Related Specific Proposed Exclusions and Alternative Buffers
Washington Toxics Coalition v. EPA
Case No. C01-0132C

Plaintiffs' Proposal	CropLife's Proposal	Differences & Plaintiffs' Rationale
Granular Formulations (¶ III.B.4) 20-yard ground & aerial buffer Exception: ethoprop	Granular Formulations Varies by product from 1 yard for 2,4-D, to 3 yards for tebuthiuron, to 10-yard ground & 25-yard aerial for some trifluralin products, to 100-foot aerial for diuron	Plaintiffs have proposed a smaller aerial buffer for granular formulations to account for reduced drift potential. CropLife proposes different aerial buffers for different granular products based on the registrants' respective positions. Compare CropLife proposals for 2,4-D, teubthiuron & trifluralin with Mahini Ex. 1 (diuron proposal). Plaintiffs have not proposed alternative ground buffers because granular formulations still have the potential to contaminate salmon waters through runoff. Granular formulations pose runoff risks that depend on toxicity, mobility, solubility, persistence, and other traits, which have not been addressed in CropLife's product-specific proposals or elsewhere. Because of EPA's concerns about its toxicity and persistence, ethoprop is the only pesticide excluded from plaintiffs' smaller aerial buffer proposal for granular formulations.
Localized Spot Treatments (¶ III.B.10) 1-yard buffer for localized spot treatments using hand-held, ready-to-use devices area treated limited 10% treated right-of-way, roadside, pasture, lawn, or forestry site	Localized Spot Treatments (Table F.4) 0-yards using backpack sprayers as well as hand-can, hand-held spray guns no coverage limitation specific to 2,4-D products	Plaintiffs propose a 1-yard buffer instead of CropLife's 0 buffers so that spot treatments are not made directly adjacent to salmon waters. Plaintiffs limit spot treatments to hand-held devices since backpack sprayers cover more extensive areas. Plaintiffs limit the area to be treated to ensure that spot treatments do not cover a large area with pesticides available for runoff Although the initial discussion of spot treatments arose in connection with 2,4-D, plaintiffs have not limited their alternative buffer to 2,4-D products since the same safeguards can be extended to other products applied using spot treatments.

Plaintiffs' Proposal	CropLife's Proposal	Differences & Plaintiffs' Rationale
Bait Stations (¶ III.B.11) 1 yard	Bait Stations (Table F.2) 0-yards	Plaintiffs propose a 1-yard buffer so that bait stations do not fall into salmon waters. CropLife proposes no buffers for bait stations.
Spot Treatment of Wasp and Hornet Nests (¶ III.B.12) 1 yard	Spot Treatment of Wasp and Hornet Nests (Table F.3) 0 yards	Plaintiffs propose a 1-yard buffer so that spray from spot treatments of wasp and hornet nests does not drift into salmon waters. CropLife proposes no buffers for spot treatment of wasp and hornet nests.
Cut-Stump Applications for Individual Tree Removal (¶ III.B.13) 1 yard	Cut-Stump Applications for Individual Tree Removal (Table F.6) 0 yards	Plaintiffs propose a 1-yard buffer so that spill from cut-stump applications does not create runoff into salmon waters. CropLife proposes no buffers for cut-stump applications for individual tree removal. Although the initial discussion of cut-stump applications arose in connection with 2,4-D, plaintiffs have not limited their alternative buffer to 2,4-D products since the same safeguards can be extended to other products applied using cut-stump applications.
Basal-Bark Application to Individual Plants (¶ III.B.14) 1 yard	Basal-Bark Application to Individual Plants (Table F.5) 0 yards	Plaintiffs propose a 1-yard buffer so that spill from basal bark applications does not create runoff into salmon waters. CropLife proposes no buffers for basal-bark applications to individual plants. Although the initial discussion of basal-bark applications arose in connection with 2,4-D, plaintiffs have not limited their alternative buffer to 2,4-D products since the same safeguards can be extended to other products applied using basal-bark treatments.
Indoor Uses (¶ III.C.14) 0 yards	Indoor Uses (¶ D.1) 0 yards	Same
Tree-Injection Applications (¶ III.C.15) 0 yards	Tree-Injection Applications (¶ D.2) 0 yards	Same Although the initial discussion of tree-injection applications arose in connection with 2,4-D, plaintiffs have not limited their exclusion to 2,4-D products since the same safeguards can be extended to other products applied using tree injection.

Plaintiffs' Proposal	CropLife's Proposal	Differences & Plaintiffs' Rationale
Homeowner Applications to Household Plants (¶ III.C.16) 0 yards	Homeowner Applications to Household Plants (¶ D.3) 0 yards	Same
Flea & Tick Collars for Dogs and Cats (¶ III.C.17)	Flea & Tick Collars for Dogs and Cats (¶ D.4)	Same
Manufacturing End-Use Products 0 yards	No proposal	Plaintiffs included an exclusion for manufacturing end-use products because CropLife identified such products containing chlorpyrifos in the spreadsheet provided to plaintiffs and containing coumaphos in Mahini Ex. 4 at 25.
No proposal	Seed Treatments & Coatings (Table F.9)	CropLife has proposed a categorical exclusion for use of pesticides as seed treatments and seed coatings. CropLife has presented no evidence that any pesticide other than lindane is used in this manner. This categorical exclusion is simply another way of proposing 0 buffers for lindane, which is unwarranted for the reasons provided in plaintiffs' pesticide-specific exclusions and alternative buffers.
No proposal	Soil Fumigation (Table F.10)	CropLife seeks a categorical exclusion for applications by soil fumigation, but CropLife has presented no information indicating that any pesticide other than 1,3-dichloropropene is applied through soil fumigation. The categorical exclusion appears to be another way to obtain 0 buffers for soil injection. CropLife offered support for 1-yard buffers for soil fumigation when done through soil injection >18 inches beneath the soil, but 1,3-dichloropropene is also applied using irrigation applications (chemigation), and no evidence has been provided showing that irrigation applications of this soil fumigant will not produce runoff.